



MODULE: CAREER PANEL

OVERVIEW

Learning Objectives

At the conclusion of this module, you will be able to:

- Interpretation: Describe the purpose and importance of an Individual Development Plan (IDP)
- Interpretation: Review interviews from expert researchers to determine skills and strategies to developing skills as a researcher within the scientific and engineering communities
- Analysis: Appraise strengths and weaknesses in your skills as a young researcher
- Analysis: Examine interviews of expert researchers and relate their responses to your own goals as applicable
- Application: Draft your own IDP

Checklist

Prior to Meeting with Mentor:

- Review the resources provided regarding Individual Development Plans (IDP)
- Watch videos below of interviews of expert researchers to gather insight into strategies for developing skills as a researcher
- Examine your strengths and weaknesses and create your own IDP

Discussion with Mentor:

- Which skills do you need to work on?
- What is the time frame for your skill development?
- Did anything stand out as you were watching the interviews?



Mentee Deliverables:

- 1. Deliverable 1: Bring a printed copy of your personal Individual Development Plan to the meeting with your mentor**
- 2. Deliverable 2: Bring a printed copy of your Five Minute Reflection**

Introduction to Career Panel/Individual Development Plan

During your undergraduate coursework, you have been developing many conceptual skills that you will use as a scientist, engineer, or researcher. This conceptual knowledge provides a cognitive framework for you to understand the principles and methods used in the various disciplines. As you progress further in your academic and professional career, you will employ this knowledge in your work. In addition to these cognitive abilities, it is important to develop other skills that will be needed in order for you to be a productive member of the scientific and engineering communities. Many of these skills are not explicitly taught via traditional coursework, and will require you to regularly assess your skill set, analyze your strengths and weaknesses, and identify strategies for improvement. Since these skills can vary widely from person to person, it is important to maintain an Individual Development Plan (IDP) that is best tailored to suit your own goals.

As you begin to create your own IDP, it may help to start with broad categories such as Professional / Interpersonal Skills, Leadership and Management Skills, or Research / Technical Skills. Within these categories you can identify more specific areas to develop. Perhaps you recognize that your public speaking skills need to be developed, or you would like to work on skills that will help you grow your professional network. Technical skills such as efficiently consuming research articles or identifying new directions for your research might also appear on your list. A good first step in creating an IDP is to take an inventory of your skills and prioritize them based on your current strengths and weaknesses. Materials in this module include a handout with these broad categories and specific skills that you may utilize to get started.

Once you have identified and appraised a set of skills to address on your IDP, the next step is to consider a timeline for their development. Typically it is suggested to outline an IDP in terms of Long Term, Intermediate Term, and Short Term skill development. Short Term goals are those you would like to address within one or two years, and might include identifying a specific research area for a senior project, or preparing for the GRE. Intermediate Term skills will look a few years into the future, and might include goals such as joining a particular research group at your school. Long Term goals might look five or more years into the future, and may include goals you have for your career.

Creating an IDP is an important tool that is widely used in research and business communities. The process is time consuming, and should be the result of an honest and thorough examination of your skills and goals. It is important that you approach your own IDP as a dynamic document, often maintaining and revisiting it in order to keep an accurate inventory of the skills you are developing. This module is meant to provide insight in how to best get started with your IDP.



Materials for this Module

- Handout 1: Building Your Individual Development Plan
- Handout 2: Expert Researcher Interviews – Video Index

Assignment(s) for this Module

Individual Development Plan

Using the information provided for the Individual Development Plan (IDP), as well as advice provided from the expert interviews, you will draft your own IDP to discuss with your mentor.

Consider the skills discussed in the interviews, as well as those you may have discussed in other modules, and evaluate where you stand in terms of strengths and weaknesses. Identify a particular skill that you feel needs to be developed, and draft an IDP for short, intermediate, and long term development.

It may help to consider the following skill categories, many of which are highlighted in the interview videos: Professional/Interpersonal Skills (Communications, Presentations, Writing, Teamwork, Networking); Leadership and Management Skills (Time Management, Setting Goals, Organization); Research/Technical Skills (Experimental Design, Identifying New Research Opportunities, Data and Statistical Analysis, Problem Solving).

- Step 1: Peruse the video index of Expert Researcher Interviews provided in Handout 2.
- Step 2: Choose two or three interesting skills discussed in the videos that might appear on your own IDP.
- Step 3: Appraise those skills based on your strengths and weaknesses.
- Step 4: Draft your own IDP for those skills, including development goals and strategies for Short Term, Intermediate Term, and Long Term.

Refer to Handout 1 to use as a template as you develop your IDP. Consider the insight provided by the experts interviewed to identify strategies that you might employ.

Deliverable 1: Bring a printed copy of your personal Individual Development Plan to the meeting with your mentor



Research Experience and Mentoring

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Five Minute Reflection

Come up with one question to discuss with your mentor (maybe a concept you are unclear on, something you found interesting, etc.)

What information did you find most informative? Least?

Did anything appear on your IDP that you had not considered prior to the exercise?

Deliverable 2: Bring a printed copy of your Five Minute Reflection to the next meeting with your mentor.